Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached paper is captioned "**Version with Markings t Show Changes Made**." Should the Examiner have any queries, suggestions or comments relating to a speedy disposition of the application, the Examiner is invited to call the undersigned.

Entry of this amendment by the Examiner is respectfully requested, as well as consideration and allowance of the application.

Respectfully submitted,
PEACOCK, MYERS & ADAMS, P.C.

By: _____
Stephen A. Slusher
Reg. No. 43,924
Direct Dial: (505) 998-6130

Attorney for Applicant
P.O. Box 26927
Albuquerque, New Mexico 87125-6927
Phone: (505) 998-1500
Fax: (505) 243-2542

Date: January 2, 2002

File: 70025-9902
F:\AMDS\Palatin-Midas\CombinLib 09-883,069._pre_amd.doc

"Version with Markings to Show Changes Made."

1. (Amended) A combinatorial library of different sequence peptide members synthesized on solid phase, where each constituent library member comprises:

(a) a peptide sequence of three or more amino acid residues bound to solid phase characterized by (i) a sequence of two or more amino acid residues forming a metal ion-binding domain and including at least one amino acid residue containing at least one S wherein the said S is protected by an orthogonal S-protecting group, the orthogonal S-protecting group being compatible with peptide solid phase synthesis and removable without cleaving the peptide from the solid phase, (ii) a sequence of one or more amino acid residues either at the N- or C- terminus of the metal ion-binding domain, or at both the N- and C-terminus of the metal ion-binding domain, provided that the at least one amino acid residue containing at least one S protected by an orthogonal S-protecting group is not the terminal amino acid at either the N- or C-terminus, and (iii) a cleavable bond attaching the peptide sequence to solid phase; and

(b) a unique selection or sequence of amino acid residues in the peptide sequence of at least one of the constituent members of the library;

wherein the orthogonal S-protecting group may be removed without cleaving the peptide sequence from the solid phase.

2. (Amended) A combinatorial library of different sequence peptidomimetic members synthesized on solid phase, where each constituent library member comprises:

(a) a peptidomimetic sequence of a combination of three or more amino acid residues and mimics of amino acid residues bound to solid phase characterized by (i) a sequence of two or more amino acid residues, mimics of amino acid residues or combinations thereof forming a metal ion-binding domain and including at least one amino acid residue or mimic of an amino acid residue containing at least one S wherein the said S is protected by an orthogonal S-protecting group, the orthogonal S-protecting group being compatible with peptide solid phase synthesis and removable without cleaving the peptide from the solid phase; (ii) a sequence of one or more amino acid residues, mimics of amino acid residues or combinations thereof at either the N- or C- terminus of the metal ion-binding domain, or at both the N- and C-terminus of the metal ion-binding domain, provided that the at least one amino acid residue containing at least one S protected by an orthogonal S-protecting group is not the terminal amino acid at either the N- or C-terminus, and (iii) a cleavable bond attaching the peptidomimetic sequence to solid phase; and

(b) a unique selection or sequence of amino acid residues, mimics of amino acid residues or combinations thereof in the peptidomimetic sequence of at least one of the constituent members of the library;

wherein the orthogonal S-protecting group may be removed without cleaving the peptidomimetic sequence from the solid phase.

3. (Amended) A combinatorial library of different sequence peptide or peptidomimetic members synthesized in solution, where each constituent library member comprises:

(a) a peptidomimetic sequence of a combination of three or more amino acid residues and mimics of amino acid residues bound to solid phase characterized by (i) a sequence of two or more amino acid residues, mimics of amino acid residues or combinations thereof forming a metal ion-binding domain and including at least one amino acid residue or mimic of an amino acid residue containing at least one S wherein the said S is protected by an orthogonal S-protecting group, the orthogonal S-protecting group being compatible with peptide synthesis in solution and removable without cleaving or otherwise altering the peptidomimetic sequences, (ii) a sequence of one or more amino acid residues, mimics of amino acid residues or combinations thereof at either the N- or C- terminus of the metal ion-binding domain, or at both the N- and C-terminus of the metal ion-binding domain, provided that the at least one amino acid residue containing at least one S protected by an orthogonal S-protecting group is not the terminal amino acid at either the N- or C-terminus, and

(b) a unique selection or sequence of amino acid residues, mimics of amino acid residues or combinations thereof in the peptidomimetic sequence of at least one of the constituent members of the library.

13. (Amended) A method for generating a metallopeptide or metallopeptidomimetic combinatorial library, comprising the steps of:

(a) constructing a library containing a plurality of sequences of the formula Aaa-MBD-Baa cleavably bound to solid phase, wherein

(i) MBD comprises at least two amino acid residues, mimics of amino acid residues or combinations thereof, with at least one of said residues comprising at least one nitrogen atom available to complex with the coordination sphere of a metal ion, the metal ion to be provided, and with at least one of said residues comprising at least one sulfur atom protected by an orthogonal S-protecting group;

(ii) Aaa and Baa each comprise from 0 to about 20 amino acid residues, mimics of amino acid residues or combinations thereof, provided that the at least one residue comprising at least one sulfur atom protected by an orthogonal S-protected group is not a terminal amino acid, and further provided that between at least two of the plurality of sequences of the formula Aaa-MBD-Baa at least either Aaa or Baa differ in at least either the sequence of residues or the selection of residues;

(b) deprotecting the sulfur atom protected by an orthogonal S-protecting group by cleaving the said orthogonal S-protecting group without cleaving the sequence from the solid phase; and

(c) complexing a metal ion to the MBD;

wherein the resulting metal ion-complexed sequences form a metallopeptide or metallopeptidomimetic combinatorial library.